

AMENDMENTS TO THE CLAIMS

Claim 1 (Original) Thermal barrier coating method which forms thermal barrier coating by spray coating over surface of component where cooling holes are made, characterized by forming thermal barrier coating by spray coating after inserting masking pins, which do not protrude above surface of the said component, into the said cooling holes.

Claim 2 (Original) Thermal barrier coating method which forms thermal barrier coating by spray coating over surface of component where cooling holes are made, characterized by including masking process where masking pins which do not protrude above the said component are inserted into the said cooling holes; blasting treatment process where surface of the said component is blasted and coarsened; and thermal barrier coating forming process where thermal barrier coating is formed by spray coating over surface of coarsened component.

Claim 3 (Original) Thermal barrier coating method which forms thermal barrier coating by spray coating over surface of component where cooling holes are made, characterized by forming thermal barrier coating by spray coating after masking pins which protrude above surface of the said component for amount equal to thickness of thermal barrier coating are inserted into the said cooling holes.

Claim 4 (Original) Thermal barrier coating method which forms thermal barrier coating by spray coating over surface of component where cooling holes are made, characterized by including masking process where masking pins protruding above surface of the said component for amount equal to thickness of thermal barrier coating are inserted into the said cooling holes; blasting treatment process where surface of the said component is blasted and coarsened; thermal barrier coating forming process where thermal barrier coating is formed by spray coating over surface of coarsened component; and chamfering process where thermal barrier coating around the said cooling holes is chamfered.

Claim 5 (Original) Thermal barrier coating method which forms thermal barrier coating by spray coating over surface of component where cooling holes are made, in which after masking pins protruding above surface of the said component are inserted into the said cooling holes, thermal barrier coating is formed by spray coating, and which is characterized by making protrusion amount be equal to or less than thickness of thermal barrier coating after masking pins are shrunk due to heat during spray coating.

Claim 6 (Original) Thermal barrier coating method which forms thermal barrier coating by spray coating over surface of component where cooling holes are made, characterized by including masking process where masking pins protruding above surface of the said component are inserted into the said cooling holes after they are shrunk due to heat by spray coating in a manner that protruding amount is equal to or less than thickness of thermal barrier coating; blasting treatment process where surface of the said component is blasted and coarsened; thermal barrier coating forming process where thermal barrier coating is formed by spray coating over surface of coarsened component; and chamfering process where thermal barrier coating around the said cooling holes is chamfered.

Claim 7 (Currently Amended) Any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~ and the said cooling holes are not drilled through or drilled through.

Claim 8 (Currently Amended) Any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~ and the said component is combustor transition piece of gas turbine and the said cooling holes are made in internal periphery surface of wall constituting the said combustor transition piece.

Claim 9 (Currently Amended) Any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~ and the said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping

easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 10 (Currently Amended) Any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~ and the said masking pin is composed of elastic body of silicone rubber.

Claim 11 (Currently Amended) Any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~ and the said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 12 (Currently Amended) Any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~ and the said masking pin is made by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 13 (Currently Amended) Masking pin used for any of thermal barrier methods described as Claim 1 ~~through Claim 6~~:

The said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 14 (Currently Amended) Masking pin used for any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~:

The said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 15 (Currently Amended) Masking pin used for any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~:

The said masking pin is formed by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 16 (Currently Amended) Masking pin used for any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~:

Outside diameter of the said masking pin is enlarged to be approximately 10 per cent larger than diameter of the said cooling hole.

Claim 17 (Currently Amended) Combustor transition piece characterized by thermal barrier coating which is formed on its internal periphery surface by way of any of thermal barrier coating methods described as Claim 1 ~~through Claim 6~~.

Claim 18 (New) Any of thermal barrier coating methods described as Claim 2 and the said cooling holes are not drilled through or drilled through.

Claim 19 (New) Any of thermal barrier coating methods described as Claim 3 and the said cooling holes are not drilled through or drilled through.

Claim 20 (New) Any of thermal barrier coating methods described as Claim 4 and the said cooling holes are not drilled through or drilled through.

Claim 21 (New) Any of thermal barrier coating methods described as Claim 5 and the said cooling holes are not drilled through or drilled through.

Claim 22 (New) Any of thermal barrier coating methods described as Claim 6 and the said cooling holes are not drilled through or drilled through.

Claim 23 (New) Any of thermal barrier coating methods described as Claim 2 and the said component is combustor transition piece of gas turbine and the said cooling holes are made in internal periphery surface of wall constituting the said combustor transition piece.

Claim 24 (New) Any of thermal barrier coating methods described as Claim 3 and the said component is combustor transition piece of gas turbine and the said cooling holes are made in internal periphery surface of wall constituting the said combustor transition piece.

Claim 25 (New) Any of thermal barrier coating methods described as Claim 4 and the said component is combustor transition piece of gas turbine and the said cooling holes are made in internal periphery surface of wall constituting the said combustor transition piece.

Claim 26 (New) Any of thermal barrier coating methods described as Claim 5 and the said component is combustor transition piece of gas turbine and the said cooling holes are made in internal periphery surface of wall constituting the said combustor transition piece.

Claim 27 (New) Any of thermal barrier coating methods described as Claim 6 and the said component is combustor transition piece of gas turbine and the said cooling holes are made in internal periphery surface of wall constituting the said combustor transition piece.

Claim 28 (New) Any of thermal barrier coating methods described as Claim 2 and the said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 29 (New) Any of thermal barrier coating methods described as Claim 3 and the said masking pin is composed of material having elasticity to be superior in blasting resistance, heat

resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 30 (New) Any of thermal barrier coating methods described as Claim 4 and the said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 31 (New) Any of thermal barrier coating methods described as Claim 5 and the said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 32 (New) Any of thermal barrier coating methods described as Claim 6 and the said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 33 (New) Any of thermal barrier coating methods described as Claim 2 and the said masking pin is composed of elastic body of silicone rubber.

Claim 34 (New) Any of thermal barrier coating methods described as Claim 3 and the said masking pin is composed of elastic body of silicone rubber.

Claim 35 (New) Any of thermal barrier coating methods described as Claim 4 and the said masking pin is composed of elastic body of silicone rubber.

Claim 36 (New) Any of thermal barrier coating methods described as Claim 5 and the said masking pin is composed of elastic body of silicone rubber.

Claim 37 (New) Any of thermal barrier coating methods described as Claim 6 and the said masking pin is composed of elastic body of silicone rubber.

Claim 38 (New) Any of thermal barrier coating methods described as Claim 2 and the said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 39 (New) Any of thermal barrier coating methods described as Claim 3 and the said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 40 (New) Any of thermal barrier coating methods described as Claim 4 and the said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 41 (New) Any of thermal barrier coating methods described as Claim 5 and the said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 42 (New) Any of thermal barrier coating methods described as Claim 6 and the said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 43 (New) Any of thermal barrier coating methods described as Claim 2 and the said masking pin is made by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 44 (New) Any of thermal barrier coating methods described as Claim 3 and the said masking pin is made by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 45 (New) Any of thermal barrier coating methods described as Claim 4 and the said masking pin is made by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 46 (New) Any of thermal barrier coating methods described as Claim 5 and the said masking pin is made by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 47 (New) Any of thermal barrier coating methods described as Claim 6 and the said masking pin is made by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 48 (New) Masking pin used for any of thermal barrier methods described as Claim 2:

The said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 49 (New) Masking pin used for any of thermal barrier methods described as Claim 3:

The said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 50 (New) Masking pin used for any of thermal barrier methods described as Claim 4:

The said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 51 (New) Masking pin used for any of thermal barrier methods described as Claim 5:

The said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 52 (New) Masking pin used for any of thermal barrier methods described as Claim 6:

The said masking pin is composed of material having elasticity to be superior in blasting resistance, heat resistance to endure heat caused by spray coating, stripping easiness to be entirely taken out from the said cooling hole after thermal barrier coating is formed, superior adherence and wetness to prevent thermal barrier coating material from accumulation.

Claim 53 (New) Masking pin used for any of thermal barrier coating methods described as Claim 2:

The said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 54 (New) Masking pin used for any of thermal barrier coating methods described as Claim 3:

The said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 55 (New) Masking pin used for any of thermal barrier coating methods described as Claim 4:

The said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 56 (New) Masking pin used for any of thermal barrier coating methods described as Claim 5:

The said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 57 (New) Masking pin used for any of thermal barrier coating methods described as Claim 6:

The said masking pin is formed by drying and hardening elastic body of liquid silicone rubber injected into the said cooling hole.

Claim 58 (New) Masking pin used for any of thermal barrier coating methods described as Claim 2:

The said masking pin is formed by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 59 (New) Masking pin used for any of thermal barrier coating methods described as Claim 3:

The said masking pin is formed by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 60 (New) Masking pin used for any of thermal barrier coating methods described as Claim 4:

The said masking pin is formed by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 61 (New) Masking pin used for any of thermal barrier coating methods described as Claim 5:

The said masking pin is formed by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 62 (New) Masking pin used for any of thermal barrier coating methods described as Claim 6:

The said masking pin is formed by punching out sheets of elastic body of silicone rubber or by forming with a metal mold.

Claim 63 (New) Masking pin used for any of thermal barrier coating methods described as Claim 2:

Outside diameter of the said masking pin is enlarged to be approximately 10 per cent larger than diameter of the said cooling hole.

Claim 64 (New) Masking pin used for any of thermal barrier coating methods described as Claim 3:

Outside diameter of the said masking pin is enlarged to be approximately 10 per cent larger than diameter of the said cooling hole.

Claim 65 (New) Masking pin used for any of thermal barrier coating methods described as Claim 4:

Outside diameter of the said masking pin is enlarged to be approximately 10 per cent larger than diameter of the said cooling hole.

Claim 66 (New) Masking pin used for any of thermal barrier coating methods described as Claim 5:

Outside diameter of the said masking pin is enlarged to be approximately 10 per cent larger than diameter of the said cooling hole.

Claim 67 (New) Masking pin used for any of thermal barrier coating methods described as Claim 6:

Outside diameter of the said masking pin is enlarged to be approximately 10 per cent larger than diameter of the said cooling hole.

Claim 68 (New) Combustor transition piece characterized by thermal barrier coating which is formed on its internal periphery surface by way of any of thermal barrier coating methods described as Claim 2.

Claim 69 (New) Combustor transition piece characterized by thermal barrier coating which is formed on its internal periphery surface by way of any of thermal barrier coating methods described as Claim 3.

Claim 70 (New) Combustor transition piece characterized by thermal barrier coating which is formed on its internal periphery surface by way of any of thermal barrier coating methods described as Claim 4.

Claim 71 (New) Combustor transition piece characterized by thermal barrier coating which is formed on its internal periphery surface by way of any of thermal barrier coating methods described as Claim 5.

Claim 72 (New) Combustor transition piece characterized by thermal barrier coating which is formed on its internal periphery surface by way of any of thermal barrier coating methods described as Claim 6.